PART 2

Description of the Proposal and Alternatives

Note:

Some pages in this document have been purposefully skipped so that this document will copy correctly when duplexed.

Project Purpose, Need, and Objectives

The proposed action that is the subject of this EIS is the adoption of a new master plan for the Washington Park Arboretum. The Arboretum and Botanical Garden Committee has developed the proposed master plan, after several years of planning and consideration of environmental, financial, and programmatic factors. (Note that the proposed master plan in the final EIS is different in several ways from the preferred proposal under consideration at the draft EIS stage.)

Project Purpose and Need

The Washington Park Arboretum encompasses approximately 230 acres south of Union Bay and north of East Madison Street on both sides of Lake Washington Boulevard East in Seattle, Washington. Various features of the Washington Park Arboretum as it exists today were first described in the original master plan developed by the Olmsted Brothers landscape design firm in 1936. The 1936 plan incorporated Lake Washington Boulevard, which had been designed and built around 1904, proposed floral display areas notably Azalea Way, and called for the arrangement of plant displays based on formal botanical classifications (i.e., on a taxonomic basis). This planting arrangement was implemented, and subsequent plantings have been developed based on their ecological needs. Some aspects of the original 1936 plan were never implemented or were implemented in a different manner than designed.

Since the preparation of the original plan, one master plan update has been developed. That document, adopted in 1978, focused on a few select issues: transportation, facilities, and pedestrian circulation. Few of the recommendations in the 1978 plan have been implemented, and in the two decades since preparation of the 1978 master plan update, conditions surrounding and within the Washington Park Arboretum have changed substantially:

- The populations of the city, region, and state have increased.
- Recreational usage of the Washington Park Arboretum has increased, and is expected to continue to increase.
- The Washington Park Arboretum infrastructure has continued to age and deteriorate.
- The fiscal and funding context has shifted with new demands for fiscal sustainability.
- Demand for educational use of the Washington Park Arboretum has increased, and educational demand from the Seattle area schools is expected to increase further.

- The Washington Park Arboretum grows specimens of 179 species considered threatened or endangered, and public and scientific concern regarding species extinction has increased.

- The Washington Park Arboretum plant collections have continued to age, and individuals in many of these collections are nearing the end of their lives.

The Washington Park Arboretum contains a large, diverse collection of plants from around the world, including more than 10,000 individual plants representing over 4,400 species and cultivated varieties. With this range of species, the arboretum has one of the three most diverse collections of woody plants in the United States. The varied plant collections require continual maintenance and protection. However, due to past and current limitations in staffing and funding, many of the trees and shrubs are dying from old age, storm damage, disease, and inadequate care. For example, inadequate maintenance in the past has led to overcrowding and shading by fast-growing self-sown natives that threaten the continued survival of the collections. In addition, the existing taxonomic arrangement of the plant collections is obscure to most visitors. The current deteriorated condition of the plant collections and the changed conditions described above led the project proponent to initiate the current master planning process.

Proponent's Objectives

The objectives of the Arboretum and Botanical Garden Committee recognize the distinctive characteristics of the Washington Park Arboretum, including its unique and valuable plant collections; its urban location adjacent to the Montlake, Madison Park, and Broadmoor communities; and its funding and support from city, state, and private institutions and individuals. The committee's goals for the future of the Washington Park Arboretum are summarized below:

Educational Goals

- An educational program fulfilling the Washington Park Arboretum's potential to serve K-12 students, higher education, families, landscape professionals, natural history and ecology enthusiasts, gardeners, special needs populations, and general visitors

- Plant exhibits organized, designed, and interpreted to be as interesting and self-explanatory as possible to the Washington Park Arboretum's diverse audiences, by reflecting either ecogeography or taxonomy

Conservation Goals

- Plant exhibits that demonstrate to all visitors the ecological attributes and values of natural plant communities throughout the temperate world (emphasizing forests of the Pacific Northwest), regions with similar climates, and selected Pacific Rim regions
- Active conservation of species of trees and shrubs (and their genetic diversity) that are threatened with extinction in temperate regions of the world
- Healthy, thriving plant collections and exhibits throughout the Washington Park Arboretum
- A sanctuary for diverse urban wildlife

Goals for Visitor Services and Recreation

- Recreational use of Washington Park Arboretum consistent with its mission of education, display, and conservation
- Maximum safety of all visitors to Washington Park Arboretum including vulnerable populations, and security for their belongings
- Decreased disruption of park and arboretum use by arterial traffic on Lake Washington Boulevard East and State Route 520 exit and entry ramps
- Maximum pedestrian and bicycle access and clear, easy circulation within the Washington Park Arboretum
- Enhancement of the ambience and visitor experience at the Japanese garden
- Educational, conservation, and visitor facilities consistent with growing recreational enjoyment by citizens of the city, region, and beyond
- Amenities for all visitors as befitting a large public garden and recreational park
- Maintain the naturalistic visitor experience that has evolved in the Washington Park Arboretum's recent history

General Goals

- Efficient and effective administration that excels at fund-raising, resource allocation, advocacy, and personnel management

- A thriving arboretum foundation, with membership, active volunteerism, and fiscal support at levels appropriate for the flagship public garden in the Pacific Northwest

- Long-term fiscal sustainability for ongoing operations and capital improvement.

Historical Background

In 1934, the University of Washington and the City of Seattle established the Washington Park Arboretum. The history of its development is summarized below.

When the University of Washington was sited at its present-day location, it was determined that an offsite location for an arboretum would be needed. Land at the Washington Park site was first acquired in 1904, when the Puget Mill Company gave 62 acres to the city in exchange for water main work. After the addition of more land, Lake Washington Boulevard East was designed and constructed in Washington Park in 1904. The city owns most of the Foster Island and Marsh Island area, except for approximately 6 acres at the periphery of Foster Island that emerged as land when Lake Washington was lowered in 1917, creating new university-owned shorelands within the park. By 1924, Washington Park consisted of 175 acres and at that time the Seattle Board of Park Commissioners declared their intent to establish the park as the "botanical garden and arboretum."

While there was much support for an arboretum at this time, funding was difficult to find during the Depression era. Development of the Washington Park Arboretum finally began in 1934 through an agreement between the University of Washington and the City of Seattle. The city agreed to provide infrastructure for arboretum and botanical garden accessibility, and the university agreed to prepare plans for the arboretum and to establish a plant collection. The university retained full control of the area devoted to the Washington Park Arboretum with the understanding that the area must be made available to the public.

During this time, the Seattle Garden Club donated money to hire the Olmsted Brothers Landscape Architects to create a master plan for the Washington Park Arboretum. Completed in 1936, the *General Plan for the University of Washington Arboretum* described many of its most popular features today, including Azalea Way, Arboretum Drive East, and the lagoons. One of the elements of the Olmsted Brothers plan was the taxonomic organization of the plant collections.

The Works Progress Administration began construction of the Washington Park Arboretum during the late 1930s. The Arboretum Foundation was founded in 1935 and provided additional funding and donated plants to begin the collections. The project received formal funding from the state legislature in 1943 through the university's biennial budget. The Works Progress Administration continued work into the early 1940s and completed several features of the park including Azalea Way, the rock garden, the stone bridge at the pinetum located west of Lake Washington Boulevard, most of the trail system, and the stone cottage at the south entrance.

After World War II, most of the plantings were completed. Most of the woody plant collections were developed between 1947 and 1972, under the direction of Brian O. Mulligan, the director of the Washington Park Arboretum; his curator, Joseph Witt; and other park staff. Mulligan and Witt made extensive modifications to the Olmsted Brothers plan, siting collections based on ecological needs of the species and arranging displays to match the conditions of the site.

During the 1960s the Japanese garden was built under the direction of Japanese landscape architect Juki Iida. After construction, the university and subsequently the city assumed responsibility for maintenance and operation of the Japanese garden. In 1963, the state appropriated approximately 47 acres of land from the park for State Route (SR) 520. A capital improvement trust fund was created using the money received for condemnation of the land. The funds were to be managed by the Arboretum and Botanical Garden Committee and used solely for capital improvement projects within the Washington Park Arboretum.

During this period, the western edge of the park was proposed for construction of the R. H. Thompson Expressway. Sasaki/Walker Associates was hired to adapt the Olmsted Brothers plan to accommodate the new expressway plans. Public opposition to the expressway led to its defeat. The sole feature of the Sasaki/Walker plan to be implemented was the waterfront trail. Some of the trust fund moneys were used to incorporate into the park several properties along its western boundary that had been cleared for the expressway.

In 1974, amid controversy over the role and rights of the university with regard to the Washington Park Arboretum, the city passed ordinance 103667, based on a citizens initiative, establishing the following provisions:

- *Intent—This ordinance is based on the principle that public parks are a public trust, to be maintained for present and future generations. It is the specific purpose of this ordinance to hold and preserve Washington Park and the Arboretum therein as open space park lands, freely accessible to all the citizens of Seattle.*

- *No Restriction of Access—Public access to and across park lands (Washington Park) owned by the City of Seattle in the east halfs [sic] of sections 21 and 28, township 25, range 4, E.W.M. shall not be restricted or impaired. No gate, fence, or barrier to pedestrian or vehicle access not in existence in said park on June 1, 1973, shall be permitted to stand. Every such gate, fence, and barrier shall forthwith be removed from said property by the Park Department of the City of Seattle.*

- *No Admission Charge or Entrance Fee—Said park lands shall be freely accessible to the public. The City of Seattle shall not levy or allow to be levied any admission charge or entrance fee to said park lands or any part thereof.*

- *No Leasing or Non-Park Uses—The City of Seattle shall not lease park lands (Washington Park) owned by the City of Seattle in the east halfs [sic] of sections 21 and 28, township 25, range 4, E.W.M., or any portion thereof. The City of Seattle shall not enter into any use agreement for said park lands which in any way allows for non-park uses of any portion thereof. Non-park uses shall include, but not be limited to, the construction or use of buildings for university classrooms, offices, laboratories, or administration buildings.*

In 1975, the Arboretum and Botanical Garden Committee was reactivated. By 1977 it was widely recognized that the long period of budget cuts and disagreements had led to the deterioration of the park and its facilities. As a result, the committee hired Jones & Jones Landscape Architects to lead the planning and design of an update to the Washington Park Arboretum master plan.

Key measures proposed in the 1978 plan included a visitors center, parking improvements, trail enhancements, maintenance facilities, and circulation improvements. Following the adoption of the Jones & Jones master plan update in 1979, the University of Washington, in an effort to reaffirm its managerial role, created the Center for Urban Horticulture. Located about 1.5 miles from the Washington Park Arboretum at Union Bay, the center became the university's management office for the arboretum, providing physical facilities, programs, and staff that could not be accommodated within the park grounds. The Donald G. Graham Visitors Center, a gift to the City of Seattle from the Arboretum Foundation, was completed in 1985 and provides an information lobby, a gift shop, a large public meeting room, administrative offices, and space for volunteer activities.

In 1994, the Seattle Department of Parks and Recreation prepared a study to determine the scope for a new Washington Park Arboretum master plan. The study determined that a new master plan was necessary in order to address changing conditions, continuing conflicts, stagnant resources and concern for maintaining the quality of collections and increasing community education functions. In 1995, the Washington State Legislature designated the Washington Park Arboretum as an official state arboretum.

In 1996, the master plan update process was undertaken with the goal of developing a strategic, long-term vision for the Washington Park Arboretum and generating greater public understanding of its role in the community. After an extensive public outreach effort, key issues were identified, including the health and security of the plant collections, programming and visitor facilities, visitor security, accessibility, and circulation. After the plan was completed, the Seattle Board of Park Commissioners held several workshops to address particular issues in the plan. Using the public comments received during this effort, a revised plan was developed including additional viable alternatives to specific proposals in the plan. After presentation of the plan to the Seattle City Council and the University of Washington Board of Regents, the present environmental impact statement (EIS) was undertaken.

Roles in Ownership and Management of the Washington Park Arboretum

Today the Washington Park Arboretum receives primary support from the City of Seattle, the University of Washington, and the Arboretum Foundation, all of whom are represented on the Arboretum and Botanical Garden Committee, along with a committee member appointed by the governor. The role and responsibilities of each group are outlined below.

The City of Seattle owns all of the land upon which the Washington Park Arboretum is situated, including the buildings, with the exception of portions of Foster Island submerged under Lake Washington prior to lowering of the lake. The city is responsible for routine maintenance within the park. In addition, the Japanese garden within the park is owned, operated, and managed by the city.

The University of Washington owns the plant collections and is responsible for developing and displaying the collections and running educational programs within the Washington Park Arboretum. University staff members provide maintenance of the collections, seek new acquisitions, document and display the plants, and provide educational programming. In addition, the university owns the portions of Foster Island that were submerged in Lake Washington prior to the lowering of the lake.

The Arboretum Foundation, founded in 1935, is a nonprofit friends group with open membership. The foundation is the major fund-raising organization for the Washington Park Arboretum, and provides volunteers.

The Arboretum and Botanical Garden Committee (ABGC) was established in the 1930s to assist the city and the university in the planning for development, use, and maintenance of the Washington Park Arboretum. The committee, as originally established, included three members representing the city, three members from the university, and one designated by the governor. The Arboretum Foundation was added to the committee in 1992 by Seattle ordinance 116337. This advisory committee provides the primary forum for discussion and resolution of issues related to the Washington Park Arboretum.

Roles in Preparation of the Environmental Impact Statement

Several comments on the draft EIS expressed perceptions of bias on the part of the project proponent or the consultants involved with producing the proposed master plan and the EIS. Following is a synopsis of the relationships of each of the parties involved.

The Arboretum and Botanical Garden Committee, using funds provided by the Arboretum Foundation and employing the Portico Group as consultants, developed *The Arboretum Plan, A Greenprint for the Future* in 1997 as a means to achieve objectives that the committee had agreed upon, based on a scoping document that was adopted by city council resolution. Herrera Environmental Consultants was a subconsultant to Portico in preparation of the plan, providing preliminary environmental background information for use in the planning process. Following distribution of the 1997 plan, public workshops were held, and the plan was subsequently revised based on input provided during those workshops. The proposed master plan evaluated in the draft EIS was the result of that process.

Based on the analysis of environmental impacts presented in the draft EIS, as well as public and agency comments received on the draft EIS, the proposed master plan has been revised further.

This revised master plan is presented in this final EIS. The next section, description of the proposal and alternatives, explains the proposed plan and revisions to it that have been made since distribution of the draft EIS.

The Arboretum and Botanical Garden Committee remains the proponent of the plan evaluated in this EIS. The perspective that any proponent brings is the desire to achieve certain objectives. This focus on objectives is natural and should not be interpreted as bias in the analysis of the means proposed to achieve those objectives. Under State Environmental Policy Act (SEPA) rules, alternatives to be considered in the EIS must include "actions that could feasibly attain or approximate a proposal's objectives, but at a lower environmental cost or decreased level of environmental degradation." Thus, the selection of alternatives in this case has been and must be focused toward the Arboretum and Botanical Garden Committee objectives. The perspective created by the proposal's objectives should not impart a bias to the assessment of the impacts, however, and efforts have been made to exclude such bias.

The Seattle Department of Parks and Recreation has two roles: it is a member of the Arboretum and Botanical Garden Committee and thus a proponent of the master plan; and it is a public agency charged with the lead role for environmental review under SEPA. The University of Washington has a similar dual role, except that the university is not acting as lead agency for SEPA review. Nonetheless, both agencies have a duty to produce an EIS that is adequate for the type of decision being considered, that is, approval of a master plan by the Seattle City Council and the University of Washington Board of Regents.

The Seattle Department of Parks and Recreation engaged Herrera Environmental Consultants to prepare the EIS, continuing in its consulting role of providing environmental information to project decision-makers at the city and the university. Herrera Environmental Consultants has no vested interest in approval or disapproval of any aspect of the proposed plan. Herrera employed the Portico Group as a subconsultant to provide accurate depictions and descriptions of the plan that Portico had earlier prepared for the Arboretum and Botanical Garden Committee, and to prepare additional visual assessment information that required expert knowledge of the proposal. Similarly, the Arboretum and Botanical Garden Committee was allowed an opportunity to review preliminary versions of the EIS to ensure that the description of the proposal was accurate.

The Seattle Department of Parks and Recreation, as the agency responsible for environmental (SEPA) review, has final editorial control of the EIS. Conclusions regarding the significance of any impacts are ultimately judgments of the lead agency. Some of the conclusions found in the draft EIS have been modified in this final EIS to reflect the conclusions of the Department of Parks and Recreation as to the significance of the impacts being considered.

Description of Alternatives

This section describes the physical aspects of the Washington Park Arboretum master plan alternatives under consideration in this EIS. This EIS considers the Arboretum and Botanical Garden Committee's preferred alternative (referred to as the proposed master plan), alternatives to key elements of the proposed plan, and a no-action alternative. Specific measures to be implemented are divided into seven components of the visitor experience and built facility:

- Roadways
- Pedestrian and bicycle circulation
- Parking facilities
- Buildings
- Outdoor shelters
- Landscape features
- Safety features.

Locations of existing facilities and areas within the Washington Park Arboretum that are named in the following sections are shown in Figure 1. Figure 2 shows the existing trail system within the park.

Revisions to the Proposal Since the Draft EIS

The project proponent, in response to community concerns, has modified the proposed master plan. For this reason, the description of alternatives presented below differs from the description presented in the draft EIS. Some of the master plan components described in the draft EIS have been eliminated from consideration, and several alternative plan elements have been incorporated into the currently proposed plan, as summarized below.

To aid the reader, an appendix (Appendix A) has been added, which includes the full text of the current Arboretum and Botanical Garden Committee proposed master plan.

The most notable changes to the proposed master plan since publication of the draft EIS are:

- The Madrona Terrace educational gateway center included in the draft EIS proposal has been replaced with a 300-square-foot outdoor shelter in the currently proposed plan, and the proposed parking lot in that area has been reduced to 30 stalls from the previously proposed 60 stalls

- Siting a 2,500-square-foot educational and visitor services building near the Washington Park playfield/Japanese garden parking lot

- Constructing smaller additions to the Graham Visitors Center complex than those proposed in the draft EIS
- Retaining some of the existing parking on Foster Island Road East
- Eliminating the roundabout or four-way intersection at Lake Washington Boulevard East and State Route (SR) 520 in favor of a more limited reconfiguration that retains existing turn restrictions
- Providing pedestrian-activated signals on Lake Washington Boulevard East at Arboretum Drive East and at East Boyer Street.

The following description of the proposed master plan includes only those elements currently being proposed. The alternatives to the proposed master plan have been changed only where an alternative has been eliminated or where an alternative element has been incorporated into the proposed master plan.

Proposed Master Plan (Preferred Alternative)

The Arboretum and Botanical Garden Committee, the project proponent, proposes adoption of the master plan described below. The elements of this proposed plan are illustrated in Figure 3.

A central element of the proposed master plan is the intensified management and rearrangement of the existing plant collections, along with development of new plant collections. Full implementation of the proposed plan would require two to three decades and would also involve construction of new facilities including buildings, pedestrian and bicycle pathways and facilities, and modification of existing roadways and parking lots. The number of full time equivalent employees (FTE) would increase from the existing 23½ FTE to about 72 FTE after full implementation of the proposed plan, of which approximately 32 FTE would be devoted to administrative and educational program staff and 40 FTE would be devoted to maintenance. These staffing projections include the Japanese garden staff.

Because the proposed plan is a programmatic master plan and minimal design work has been performed for individual facilities, this project description provides limited detail on these proposed facilities. It is intended, however, that proposed facilities be similar in height, bulk, and character to the existing facilities. Elements of the proposed plan are outlined below.

Roadways

North Entry to Washington Park Arboretum

- Realign the north end of Lake Washington Boulevard East and its intersection with the on/off-ramps of SR 520.

rtb/HEC33/1470/EIS

to Seattle

Arboretum Creek

Wilcox footbridge

E Lynn St

Lake Washington Blvd E

Conifer meadow

Bover Ave E

E Interlaken Blvd

Japanese garden

Pond

Honeysuckle Hill

Pinetum

Yew Hill

Azalea Way

Unused freeway ramp

Foster Island Rd E

Marsh Island

Union Bay (Lake Washington)

Lookout gazebo

Rise

Loderi Valley

Woodland garden

Willow Bay

Winter garden

Rock garden

Arboretum Drive E

Lagoons

Duck Bay

Washington Park playfield

E Madison St

Lake Washington Blvd E

Stone cottage

Rhododendron glen

Sorbus collection

Arboretum Drive E

Graham Visitors Center

Maintenance area

Broadmoor Golf Club

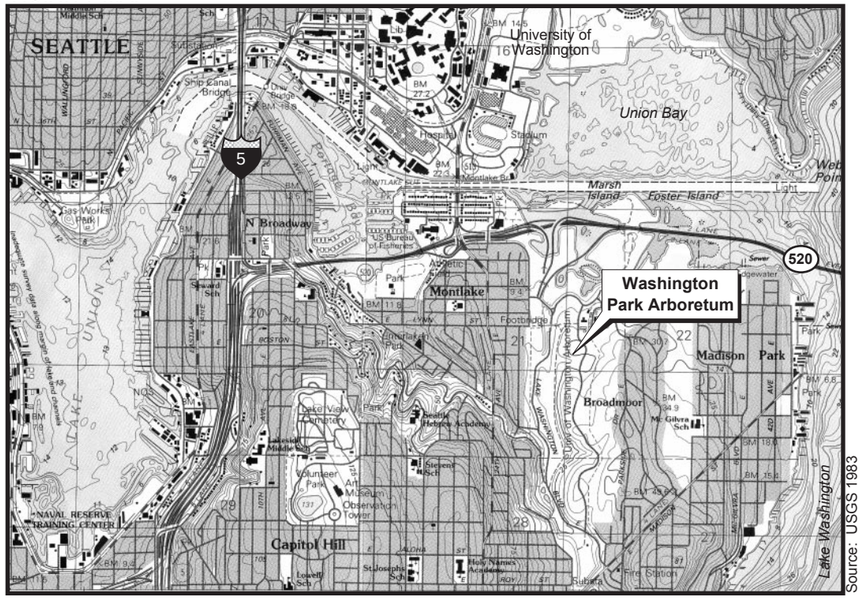
Greenhouses and lath houses

520

Foster Island

to Bellevue

VICINITY MAP



Source: USGS 1983

Legend

- Park boundary
- Fence
- Creek
- Parking stalls

N

0 200 500 1000 feet

Approximate scale

Figure 1. Existing features in the Washington Park Arboretum.

Figure 2. **Existing pedestrian and bicycle paths in the Washington Park Arboretum.**

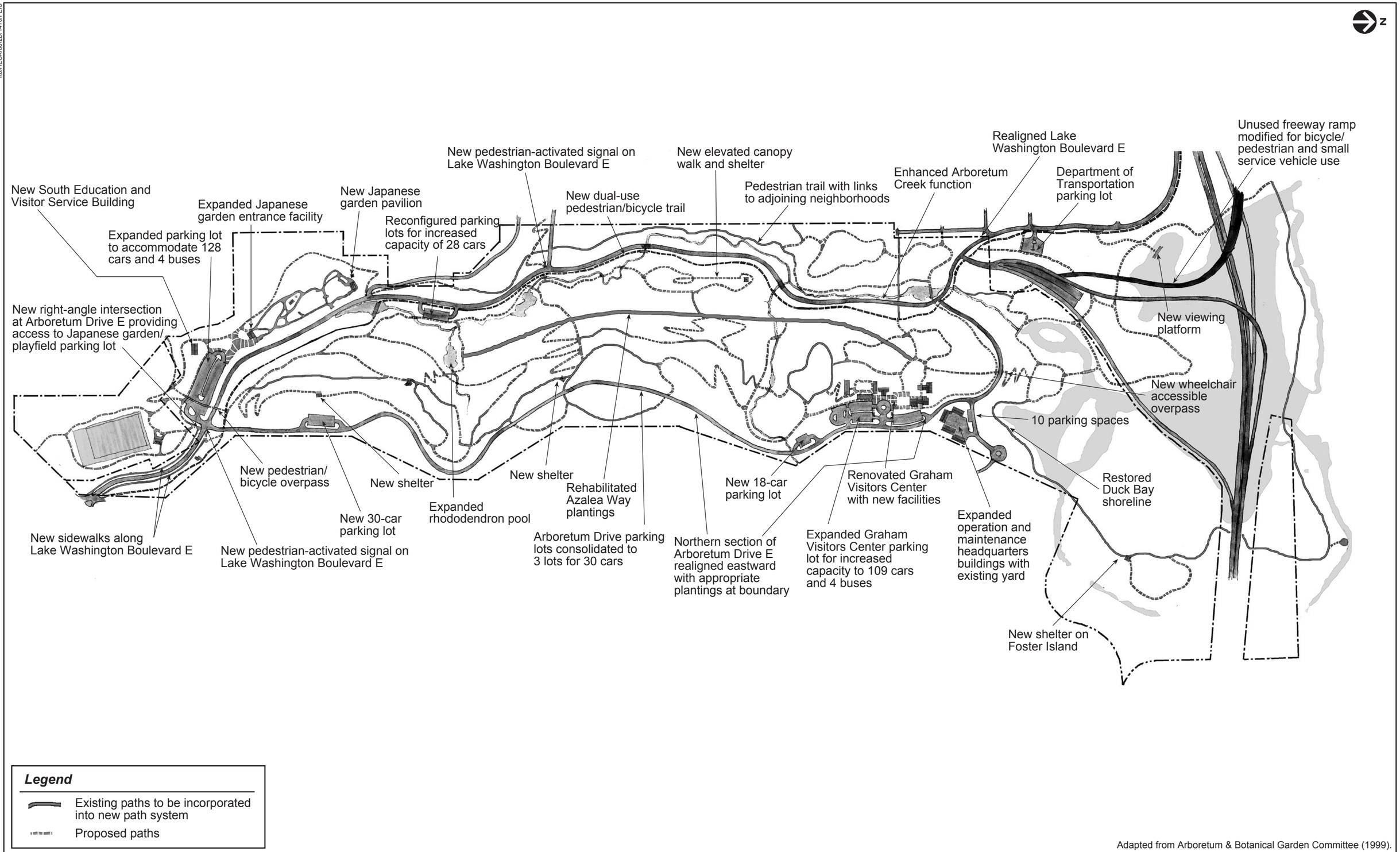


Figure 3. Major elements of the master plan proposal for the Washington Park Arboretum.

- Modify the unused freeway ramp at the north end of the park to make a pedestrian/bicycle link to the Museum of History and Industry. (Further approvals may be required for modification of this ramp, which is owned by the Washington State Department of Transportation.)

Lake Washington Boulevard Improvements with Overpasses

- Continue the existing configuration of a two-way arterial linking Lake Washington neighborhoods to the University of Washington. Access to and from the SR 520 ramps and Washington Park Arboretum attractions is being further studied in the *Trans Lake Washington Study*. The city, university, and Arboretum and Botanical Garden Committee will continue to work toward reducing the adverse effects that the arterial and freeway access have on Washington Park Arboretum.

- Recommend installation of pedestrian-activated signals on Lake Washington Boulevard East at its intersections with Arboretum Drive East and Boyer Avenue East. (These changes would require approval of the Seattle Department of Transportation, which has responsibility for traffic controls on arterials.)

- Redesign a four-way right-angle intersection connecting Arboretum Drive East, the access to the Japanese garden/Washington Park playfield parking lot, and Lake Washington Boulevard East.

- Recommend that the Seattle Department of Transportation consider taking further steps to improve safety and vehicular access for Washington Park Arboretum users.

Arboretum Drive Realignment and Parking Lot Consolidation

- Relocate the northern third of Arboretum Drive eastward, from just north of the *Picea* (spruce) display to the Graham Visitors Center.

- Leave Arboretum Drive East open to two-way through traffic, and implement measures to eliminate trucks and non-arboretum traffic, whenever possible.

- Use Arboretum Drive East for low-speed electric or pedal-powered tour vehicles and other special-purpose access, such as tram tours.

- Reduce the number of small parking lots along Arboretum Drive East (see discussion of parking facilities below).

Pedestrian and Bicycle Circulation

- Reorient pedestrian trails for improved viewing of displays; improve public access (including slope and surfacing to meet Americans with Disabilities Act [ADA] guidelines); develop three north/south loop trails, including a ramped switchback trail at the rise (approximately midway along the north-south axis of the park); and retain many informal trails.
- Complete the Foster Island loop trail.
- Install a dual-use pedestrian and bicycle trail running the length of the east side of Lake Washington Boulevard East, with two branches near the south end: one crossing Arboretum Drive East and passing east of the stone cottage to East Madison Street, and the other crossing to the west side of Lake Washington Boulevard East and passing via a tunnel under East Madison Street to the Harrison Valley.
- Designate a separate parallel pedestrian pathway along the full length and west of Arboretum Drive East.
- Renovate, enhance, and provide additions for a complete pedestrian trail running the length of the park west of Lake Washington Boulevard East, with pedestrian links to the adjoining neighborhood.
- Add a wheelchair-accessible overpass over Foster Island Road East, terminating at an earthen fill on the north side.
- Create an open-space trail hub west of the Graham Visitors Center, minimizing disturbance of significant existing vegetation.
- Install an elevated canopy walk between the summits of Yew Hill and Honeysuckle Hill, providing access to the treetops for educational purposes.
- Add a pedestrian/bicycle overpass over Lake Washington Boulevard East south of the Japanese garden and north of the Washington Park playfield.
- Install sidewalks along Lake Washington Boulevard East from East Madison Street to Arboretum Drive East.
- Add two pedestrian-activated signals on Lake Washington Boulevard, one at Arboretum Drive and one at East Boyer Street.

Parking Facilities

Consolidation, Expansion, and Addition of Parking Lots

- Consolidate the existing scattered small parking lots at the north end of the park (presently six lots, 108 cars) as part of expanded parking at the Graham Visitors Center, but retain approximately 10 spaces along the

south side of Foster Island Road, across from Duck Bay, and north of the maintenance yard.

- Retain the Department of Transportation lot, with 25-car capacity, off Lake Washington Boulevard just west of the SR 520 ramps.
- Expand the present Graham Visitors Center lot southward in order to increase capacity from 47 cars to 109 cars and four buses.
- Add an 18-car parking lot northeast of the woodland meadow adjacent to Arboretum Drive East.
- Reduce the number of Arboretum Drive parking lots, presently ten lots for 89 cars, to three small lots for a total of 30 cars.
- Add a parking lot for 30 cars at Madrona Terrace.
- Reconfigure the parking lot at East Interlaken Boulevard and Lake Washington Boulevard East for better planting and efficiency, increasing capacity from 22 to 28 cars.
- Expand the 84-vehicle parking lot between the Japanese garden and the Washington Park playfield to accommodate approximately 128 cars and four buses, and improve planting.

Table 2 summarizes the approximate existing parking capacity in the Washington Park Arboretum, compared with the parking capacity included in the proposed master plan. Parking capacity would be increased by eight bus stalls and approximately one car stall.

Table 2. Comparison of existing parking capacity with currently proposed parking capacity for the Washington Park Arboretum.

Parking Lot Locations	Existing Parking Stalls	Proposed Car Stalls	Proposed Bus Stalls
Foster Island Road East	70	10	–
Wilcox footbridge	26	–	–
Pinetum	12	–	–
Washington State Department of Transportation	25	25	–
Graham Visitors Center	49	109	4
Arboretum Drive East (consolidated lots)	89	30	–
Madrona Terrace	0	30	–
Near woodland meadow	0	18	–
Lake Washington Blvd north of Interlaken Blvd	22	28	–
Washington Park playfield/Japanese garden	84	128	4
Totals	377	378	8

Buildings

Building Renovations and Expansion, with Added Buildings

In the proposed plan elements summarized below, square footages identified for buildings represent approximate footprints. For buildings where a small second story is proposed (similar to the existing Graham Visitors Center), a total floor area square footage is included after the footprint area. Basements, if any, would lack direct outside access and would be used for storage rather than for Washington Park Arboretum programs.

Figure 4 shows the proposed plan for the Graham Visitors Center area. New or renovated buildings in the proposed master plan would be somewhat smaller than identified in the draft EIS.

- Expand the operation and maintenance headquarters buildings from 4,675 to approximately 10,000 square feet at the existing maintenance yard site, retaining the existing 2,800-square-foot maintenance building, to accommodate increased horticultural staff from the current 17.4 full-time equivalent staff to the proposed number of 42 full-time equivalent staff and to accommodate increased maintenance equipment storage.
- Renovate the Graham Visitors Center, keeping its current size (5,690-square-foot footprint, 6,700-square-foot floor area), for visitor services, moving non-visitor services to offsite locations, locating the bookstore in the lower offices, and using the upper floor for visitors center offices.
- Construct a new curation facility adjacent to the Graham Visitors Center to support curation, general services, and administration (3,000-square-foot floor area).
- Construct a new facility adjacent to the Graham Visitors Center to support education) with a multipurpose meeting room (3,000-square-foot floor area).
- Replace and reorient the existing greenhouses south of the Graham Visitors Center, with approximately the same floor area for new greenhouses (5,730 square feet).
- Construct a combined gateway educational and visitor services building south of the Japanese garden at the south end of the park, with approximately 2,500 square feet of floor area to accommodate educational activities, restrooms, and interpretive functions for the south end of the park (see Figure 5).
- Retain the stone cottage located adjacent to the intersection of Arboretum Drive East and Lake Washington Boulevard East.

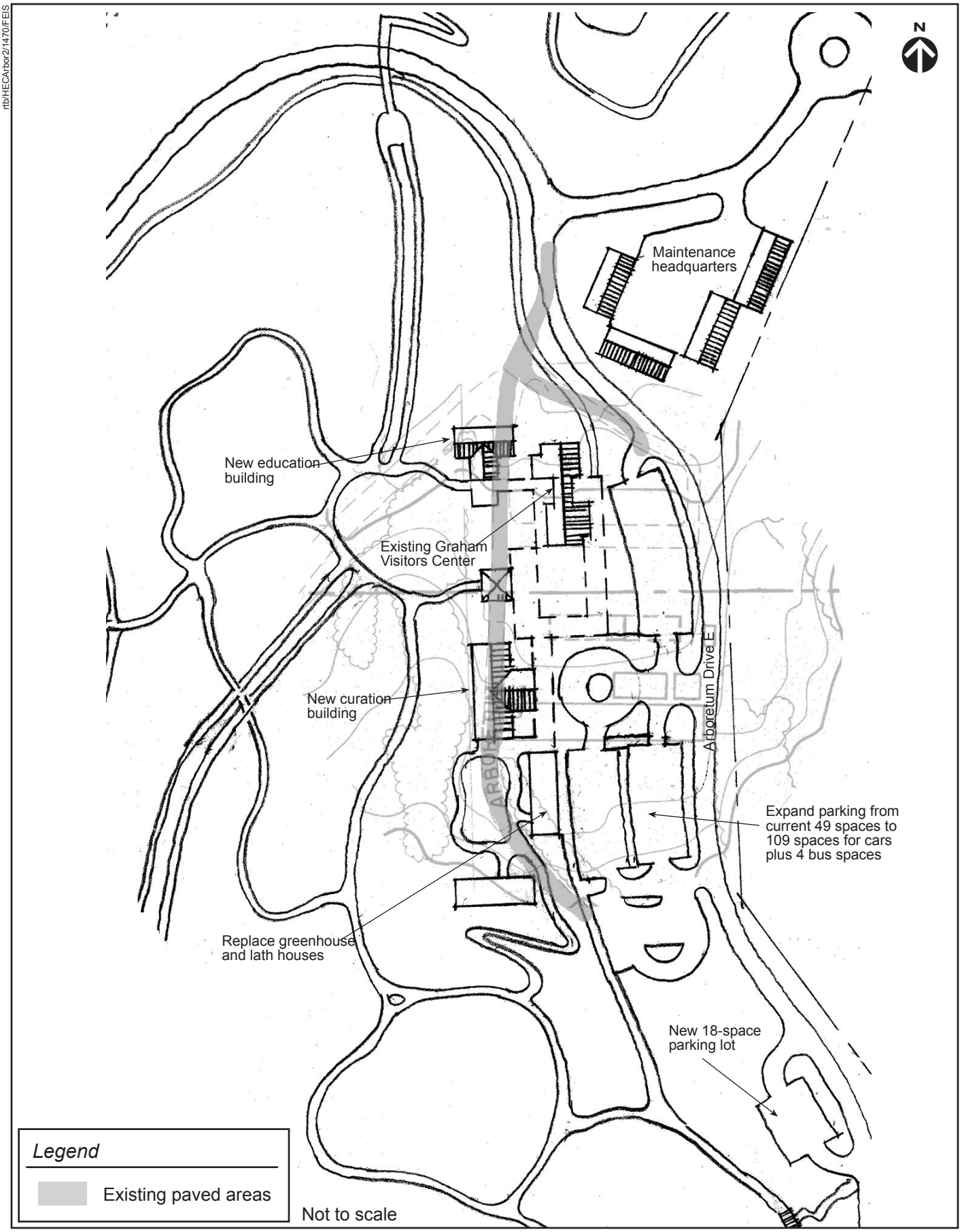


Figure 4. Proposed plan for Graham Visitors Center and vicinity.

Figure 5. Proposed plan for south-end gateway educational facility, reconfigured parking lot, and Japanese garden entrance.

- Add a Japanese garden pavilion (approximately 1,000-square-foot floor area and footprint), with a small enclosed space and a veranda, against the hillside north of the pond.
- Expand the Japanese garden entrance facility from its existing 50 square feet to approximately 1,700 square feet of floor area (same footprint), to include a ticket window, gift shop, restrooms, and a small reading room.
- Retain the three open structures in the Japanese garden, which have a total footprint of 1,400 square feet.

Outdoor Shelters

Addition of Four Outdoor Educational Shelters

Increase the number of outdoor educational shelters from one to four:

- Construct a new 300-square-foot shelter at Foster Island, including a locked storage closet for educational materials.
- Construct a new 300-square-foot shelter at Yew Hill with the canopy walk.
- Construct a new 300-square-foot shelter at Madrona Terrace (see Figure 3).
- Construct a new 300-square-foot shelter adjacent to the alpine plant display northwest of the rhododendron glen.
- Retain the 600-square-foot lookout gazebo.

Landscape Features

Reorganization and Addition of Plant Exhibits, with Habitat and Boulevard Improvements

- Plant boulevard trees along the north end of Lake Washington Boulevard East and Foster Island Road East, and maintain the boulevard trees along Lake Washington Boulevard East from East Madison Street to Arboretum Drive East.
- Construct one viewing platform on the shore south of Marsh Island, and restore and stabilize the Duck Bay shoreline.
- Install new display and demonstration gardens south of the Graham Visitors Center complex, with small arbors, terraces, and pools or water features.

- Designate the woodland meadow for special events and community celebrations, maintaining its current ambience.
- Retain a compost area, possibly incorporated into a demonstration garden.
- Increase water flow at the source of Arboretum Creek by allowing more water into the channel, but keep it in underground culverts past the playfield, emerging aboveground east of Lake Washington Boulevard near the East Interlaken Boulevard intersection, and flowing in a surface channel north to Union Bay.
- Modify Arboretum Creek to include pools, wetlands, woody debris, and other features to enhance the creek's ecological function.
- Renovate 30 existing plant exhibits and create 21 new ones, emphasizing ecological and horticultural themes to complement the traditional taxonomic exhibits.
- Expand the rhododendron pool up to twice its present size.
- Incorporate specimens of species, both native and exotic, that are threatened with extinction worldwide.
- Improve the wildlife habitat value throughout the park.
- Manage the native vegetation for aesthetic and conservation purposes.

Safety Features

Lighting, Telephone, Parking, and Signage Improvements

- Improve lighting at entrances, parking areas, and other strategic locations.
- Install emergency telephones and first aid call boxes at strategic locations.
- Spread programmatic activities and facilities more evenly throughout the park.
- Reduce or eliminate parking in isolated areas.
- Clearly mark trail routes and locations on signage.

Alternatives to the Proposed Master Plan

Using the comments solicited by the Seattle Board of Park Commissioners, city staff members and the Arboretum and Botanical Garden Committee identified a range of viable alternatives to some of the specific elements included in the draft EIS proposed plan. For this final EIS, some of those alternatives have been incorporated into the proposed plan described above. Each of the remaining alternatives is described below.

Roadways

Four-Way Stop at North Entry to Washington Park Arboretum

- Develop a four-way traffic stop to connect the SR 520 on/off-ramps with Lake Washington Boulevard East and Foster Island Road East, with some rerouting of the roadways allowing them to interconnect. [As with the roundabout proposed in the draft EIS for this location, this alternative could allow left turns from southbound Lake Washington Boulevard East onto SR 520, likely resulting in significant onsite and offsite traffic congestion. Therefore, as with the roundabout, the four-way-stop alternative has been eliminated from further consideration in the proposed master plan, but discussion of the impacts has been retained in the EIS].

- Demolish the unused freeway ramp to open up the northwest corner of the park.

Lake Washington Boulevard Improvements with At-Grade Crossings

- Instead of pedestrian overpasses or pedestrian-activated signals, install stop signs and at-grade pedestrian crossings on Lake Washington Boulevard at the Arboretum Drive East and Boyer Avenue East intersections as well as across Foster Island Road East.

Arboretum Drive Parking Lot Consolidation with Restricted Access

- Close Arboretum Drive East to through vehicular traffic, but use it for service vehicles, low-speed or pedal-powered tour vehicles, and special-purpose access.

- Remove all small parking lots along Arboretum Drive East, consolidating parking in the north and south parking areas only.

Pedestrian and Bicycle Circulation

Overpass at East Interlaken Boulevard

- Instead of a Lake Washington Boulevard pedestrian/bicycle overpass south of the Japanese garden, locate a pedestrian/bicycle overpass at the north end of the Japanese garden near the East Interlaken Boulevard intersection.

Separated Bicycle and Pedestrian Trails

- Develop a commuting bicycle trail rather than a dual-use pedestrian/ bicycle trail along the east side of Lake Washington Boulevard, so that bicycles would have a safe route and vehicular traffic would be less constrained by slower-moving bicycles.

Parking Facilities

Parking Lot Expansion at Dispersed Locations

- Expand the Japanese garden/Washington Park playfield parking lot from its approximate existing capacity of 84 cars to accommodate 158 cars and four buses.

- Retain the scattered small parking lots along Arboretum Drive East, to provide a small number of parking stalls in the Madrona Terrace area to support an outdoor educational center proposed nearby.

Buildings and Outdoor Shelters

Building Renovations without Expansion, and South-End Structure at Madrona Terrace

- Instead of accommodating all or most of the additional educational, curatorial, administrative, and meeting space near the Graham Visitors Center, locate approximately half of it offsite (about 5,000 square feet). One possible offsite location is the Museum of History and Industry.

- Construct an education building of approximately 2,500 square feet at Madrona Terrace in the south end of the park and dedicate the building to public educational use related only to plant exhibits in that part of the arboretum.

- Use available space in the existing restroom building at the Washington Park playfield, especially if an overpass is provided for pedestrians crossing Lake Washington Boulevard East near there.

Limited Educational Space Offerings

- Provide only enough additional indoor education space onsite to accommodate two or three classrooms of children at any one time, bringing the necessary educational and other support staff into the park as needed for scheduled programs in those facilities.

No Building Expansion, with Administration and Operations Moved Offsite

- Reallocate space in the existing Graham Visitors Center to only the highest-priority administrative, educational, curatorial, and visitor service activities, and locate all new space for these activities offsite (with the exception of small outdoor stations).

- Emphasize outreach programs to schools rather than onsite programs.

- Locate all new operation and maintenance personnel and equipment offsite (perhaps by expanding the existing Department of Parks and Recreation east central maintenance facility at 2820 East Ward Street, or using University of Washington facilities or other offsite facilities).

Landscape Features

See the no-action alternative below for a description of alternative landscape elements.

Safety Features

Limited Lighting and Telephone Improvements

- Install telephone call boxes at a few selected sites, and equip docents and personnel with cellular telephones.

- Retain existing distribution of parking to encourage use of the whole park, and add security lighting only in evening high-use areas.

No Action

Under the no-action alternative, the Washington Park Arboretum would continue to operate much as it does today under the general guidance of the 1978 master plan update. Several measures described in the 1978 master plan have been implemented, such as the construction of the Graham Visitors Center. Other elements of the 1978 plan have since been deemed infeasible, either because of lack of support or because of changed conditions. Other measures identified in the 1978 master plan update have not been implemented due to a lack of funding.

The general recommendations of the 1978 master plan update are summarized below:

- Make no massive changes in the basic physical structure or landscape character of the Washington Park Arboretum.
- Place greater emphasis on the spatial and visual impacts of major management decisions to ensure that the clarity of the Olmsted Brothers plan survives.
- Continue the Washington Park Arboretum's role as a regional botanical resource, a special city park, and a facility fully available to the surrounding communities.
- Introduce no new recreational facilities, and accommodate existing uses with more grace and less impact. Carefully executed improvements and additions would be beneficial.
- Examine the interchange ramps for screening and eventual closure, and consider reacquisition of unoccupied portions of state highway rights-of-way.
- Manage the Washington Park Arboretum primarily for the display of plants for public enjoyment, for horticulture, and for landscape gardening.

With these general recommendations in mind, during the current master planning process several specific measures were identified for future improvements, changes, or actions. Specific measures of the 1978 master plan update that were not implemented have been revisited during preparation of the proposed master plan to assess the feasibility of their implementation today. Some of these measures are incorporated into the currently proposed master plan, where they have been expanded and described in greater detail. During this EIS scoping process, other measures were eliminated as components of the no-action alternative because they are infeasible or no longer address conditions at the site. If the proposed master plan is not adopted, further development of the Washington Park Arboretum would continue to be guided by implementation of the 1978 plan, as follows.

Roadways

- Make no significant changes to roadways.

Pedestrian and Bicycle Circulation

- Make no significant changes to the existing trail system. Maintain the system and make minor improvements to provide barrier-free access (in compliance with Americans with Disabilities Act) at strategic places.

- Complete the Marsh Island trail around Duck Bay, connecting it to the Museum of History and Industry area.

Parking Facilities

- Remove the small five-car parking lot (now much larger) near the Wilcox footbridge and the lot near the reflecting pool at Lake Washington Boulevard East and East Interlaken Boulevard.

- Provide a 20-car parking lot off the Boyer Avenue East intersection with Lake Washington Boulevard East.

- Remove most shore-side parking along Foster Island Road East, but redesign and improve a 25-car parking area on the north side opposite the oak grove, and expand roadside parking on the south side between Arboretum Drive East and the Broadmoor entrance.

- Retain parking on the east side of Arboretum Drive East.

- Retain and reconfigure an approximately 60-car parking lot as part of the park service core.

- Revise the Japanese garden/Washington Park playfield parking lot to create a turnaround at the south end, and eliminate the south-end access to Lake Washington Boulevard East.

Buildings

Complete the remaining projects identified in the 1978 master plan update, as follows:

- Renovate the existing maintenance, storage, and work buildings; retain the greenhouses; and rebuild the lath houses.

- Add public restrooms near the Japanese garden teahouse.

- Locate several drinking fountains in the park.

Outdoor Shelters

Build several new vine pergolas, near Duck Bay, the reflecting pool, and the sunken meadow.

Landscape Features

Under the no-action alternative, the guidelines set forth in the 1978 master plan update would continue to guide maintenance of exhibits and the general character of the park. Those guidelines include the following:

- Maintain and improve the basic Olmsted Brothers design concepts of small, intimate spaces along Lake Washington Boulevard East, Azalea Way, and Arboretum Drive East.
- Make Lake Washington Boulevard East into more of an avenue, with large deciduous trees on each side in clusters and formal groupings, producing a more continuous canopy.
- Array informal groupings of flowering trees and shrubs along Arboretum Drive East, favoring diversity over specialization of plant life.
- As collections mature, thin them out to maintain healthy specimens.
- Protect and enhance major views and vistas.
- Develop new or expanded collections in selected locations, including the public service core and near new water features, the sunken meadow, and elsewhere.
- Enhance Azalea Way plantings.
- Develop ecological or geographical display areas (e.g., water-loving trees along Arboretum Creek, a typical Pacific Northwest forest in the south woods, a Himalayan forest above Azalea Way, and willows and alders around Willow Bay).
- Retain and continue to improve special purpose areas such as Arboretum Creek, the rock garden, the Japanese garden, and the winter garden.
- Retain and further improve some major taxonomic groupings, such as the pinetum and oak grove, while significantly rehabilitating others, such as the lilac and rose areas.
- Revitalize or phase out the *Philadelphus* and *Deutzia* collections.

Safety Features

No specific safety recommendations are identified in the 1978 master plan update.

Phasing of Master Plan Implementation

The currently proposed master plan would be implemented over a two to three decade period. The specific sequence of development would be determined by current programmatic priority, availability of funding for capital projects, and availability of ongoing funding to sustain new exhibits or capital developments.

Despite uncertainties regarding many aspects of master plan phasing, particular developments included in the plan would necessarily be sequenced. For example, utilities must be installed before new buildings dependent on those utilities are constructed. Consolidated parking would be constructed before removal of the existing smaller parking lots that the consolidated parking would replace. A relocated display would be given time to mature before the display at the former site is removed, so that at no time is a valuable display missing or ineffective.

The Arboretum and Botanical Garden Committee has identified general principles for prioritizing projects under the proposed master plan, which are stated below in order of priority:

1. Maintenance and renovation of plant collections
2. Repair and improvement of infrastructure for maintenance of the collections
3. Improved visitor amenities, including parking, structures, and educational programs.

Comparison of Environmental Impacts of the Alternatives

Table 3 presents a brief comparison of the expected impacts form the proposed master plan and alternatives. Impacts are discussed and compared in greater detail in the Affected Environment, Impacts, and Mitigation section of the EIS.

Table 3. Comparison of environmental impacts of the alternatives.

	Earth	Air Quality	Water Resources	Plants and Animals	Energy and Natural Resources	Noise	Land and Shoreline Use	Recreation	Historic and Cultural Resources	Aesthetics	Transportation	Public Services and Utilities
Proposed Master Plan (Preferred Alternative)	Several geologic hazard areas are found on the site, but impacts can be avoided and minimized through appropriate siting and design. Potential erosion during construction can be minimized through proper construction methods.	Minor degradation of local air quality at pedestrian activated signals due to increased emissions from idling automobiles. Potential dust equipment emission impacts during construction can be minimized through proper construction practices.	Potential construction and long impacts such as sedimentation, flooding, and pollution from parking areas can be minimized by proper design and construction techniques.	Minor habitat loss and additional disruption from human activity would occur where new construction and parking areas are proposed. Temporary disruption of habitat would occur during construction and exhibit development.	Construction and would consume energy and natural resources, including natural gas, electricity, and raw materials such a wood, sand and gravel, and petroleum products.	Construction noise would be the primary noise impact, although expanded elementary education programs are expected to increase noise from human activity. Compliance with noise control regulations would partially mitigate construction noise.	The proposed dock on the Lake Washington shoreline would require shoreline conditional use approval. Compliance with land use and shoreline regulations would mitigate potential impacts.	Recreational opportunities would increase with more barrier-free access and other amenities. Some areas currently enjoyed for passive recreation would become more active or be developed with structures. (see Aesthetics section)	No impacts are expected to the landmark Wilcox bridge. Other historic elements, such as Azalea Way and Lake Washington Boulevard, could be affected by new exhibits, paths or buildings. Some areas would be rehabilitated following historic preservation guidelines. Archaeological resources may exist on Foster Island, but are not expected to be impacted.	New built elements and parking areas would be constructed plantings and roads would be altered, and some tranquil and naturalistic areas would be come more developed and utilized. Some parking lots and roads areas would be removed and the areas planted.	The projects in the proposed plan are expected to generate minor amounts of additional peak hour traffic. Minor increases in traffic congestion and minor accidents are expected at new pedestrian-activated signals on Lake Washington Boulevard. Parking capacity would be increased slightly, including eight spaces for buses.	No significant impacts on emergency or utility services. Educational services would increase.
4-Way Stop at North Entry to WPA (No longer under consideration, but included for comparison)	Impacts would be similar to the proposed master plan.	Slightly greater degradation of local air quality than the proposed master plan is expected due to increased emissions from idling automobiles.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan. Access to and from Foster Island Road by park users would be improved, but other users would experience increased traffic congestion.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Significant new traffic could be attracted if left turns are not restricted from southbound Lake Washington Boulevard onto SR 520. Traffic delays could be substantial at peak hours.	Impacts would be similar to the proposed master plan.
Lake Washington Boulevard Improvements with at Grade Crossings	Impacts would be similar to the proposed master plan.	Slightly greater degradation of local air quality than the proposed master plan is expected due to increased emissions from idling automobiles.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to but slightly greater than the proposed master plan, due to additional foot and bicycle traffic using pedestrian activated signals.	Impacts would be similar to the proposed master plan.
Arboretum Drive Parking Lot Consolidation with Restricted Access	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan. The area along Arboretum Drive might benefit slightly from less habitat disruption from traffic.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan, except that the eastern portion of the park would have fewer vehicles using the road.	Impacts would be similar to the proposed master plan, except that the eastern portion of the park would have fewer vehicles using the road.	Impacts would be similar to the proposed master plan.
Overpass at East Interlaken Blvd	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan, but could have a greater impact on character of the boulevard.	Impacts would be similar to the proposed master plan, except that this overpass might be a more conspicuous structure than the south end overpass.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.
Separated Bike and Pedestrian Trails	Impacts would be similar to but slightly greater than the proposed master plan, due to additional grading.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan. Conflicts between foot traffic and bicycles would be reduced.	Impacts would be similar to the proposed master plan, except the bike path would be required to be wider than the dual use path, and thus more of the character of the boulevard could be affected.	Impacts would be similar to but slightly greater than the proposed master plan, due to additional trail area.	Impacts would be similar to the proposed master plan, except that some cyclists would use the dedicated bike path, reducing traffic conflicts.	Impacts would be similar to the proposed master plan.

Table 3. Comparison of environmental impacts of the alternatives (continued).

	Earth	Air Quality	Water Resources	Plants and Animals	Energy and Natural Resources	Noise	Land and Shoreline Use	Recreation	Historic and Cultural Resources	Aesthetics	Transportation	Public Services and Utilities
Parking Expansion at Dispersed Locations	Impacts would be similar to the proposed master plan, with slightly greater potential for erosion during construction of the larger Japanese garden/ Playfield parking lot, and less potential for erosion where parking would be retained on Arboretum Drive	Potential construction dust and emission impacts would be slightly greater than the proposed master plan due to the larger parking lot at the south end. lot	Impacts would be similar to the proposed master plan, but greater detention could be necessary due to a larger lot. Some existing lots that would be eliminated in the proposed master plan and that do not have detention or oil separation would continue to impact water resources.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan, with slightly greater consumption of resources for the larger lot.	Impacts would be similar to the proposed master plan, with slightly greater generation of construction noise for the larger lot.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan, except that the area around the Playfield would be more impacted by the larger lot.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.
Building Renovations without Expansion, South End Structure at Madrona Terrace	Impacts would be similar to the proposed master plan except that geologic hazards and erosion potential during construction would be avoided for buildings near the Graham Visitor center (Graham Visitors' Center)	Slightly less impact from dust during construction due to reduced construction at Graham Visitors' Center.	Impacts would be similar to the proposed master plan, but less detention would be required due to reduced impervious surfaces.	Impacts would be slightly greater than the proposed master plan at Madrona Terrace, but somewhat reduced at Graham Visitors Center.	Impacts would be similar to the proposed master plan, with slightly less due to the reduced building program	Impacts would be similar to the proposed master plan, with slightly less due to the reduced building program	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan. Madrona Terrace, a relatively tranquil area of the park, would be more impacted by activity and buildings than under the proposed master plan, but would also have additional amenities for visitors.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan. Madrona Terrace, a relatively tranquil area of the park, would be more impacted by activity and buildings than under the proposed master plan, but would also have additional amenities for visitors.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.
Limited Educational Space Offerings	Impacts would be similar to the proposed master plan except that geologic hazards and erosion potential during construction would be avoided for the education buildings.	Impacts would be similar to the proposed master plan except that air quality impacts during construction would be avoided for the education buildings.	Impacts would be similar to the proposed master plan, but less detention would be required due to reduced impervious surfaces.	Impacts would be similar to the proposed master plan, but less disruption would occur due to reduced building program, and more limited human activity.	Impacts would be similar to the proposed master plan, with slightly less due to the reduced building program	Impacts would be similar to the proposed master plan, with slightly less due to the reduced building program	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan, except that fewer areas would be affected by new construction.	Impacts would be similar to the proposed master plan, except that fewer areas would be affected by new construction.	Impacts would be similar to the proposed master plan, except that fewer areas would be affected by new construction.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.
No Building Expansion, with Admin. and Operations Moved Offsite	Impacts would be similar to the proposed master plan except that geologic hazards and erosion potential during construction would be avoided for buildings.	Impacts would be similar to the proposed master plan except that air quality impacts during construction would be avoided for buildings.	Impacts would be similar to the proposed master plan, but less detention would be required due to reduced impervious surfaces.	Impacts due to construction disturbance and displacement would be less than with the proposed master plan.	Impacts would be similar to the proposed master plan, with slightly less due to the reduced building program	Impacts would be similar to the proposed master plan, with slightly less due to the reduced building program	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan, except that fewer areas would be affected by new construction.	Impacts would be similar to the proposed master plan, except that fewer areas would be affected by new construction.	Impacts would be similar to the proposed master plan, except that fewer areas would be affected by new construction.	Impacts would be similar to the proposed master plan, with slightly less on-site traffic generated.	Impacts would be similar to the proposed master plan.
Limited Lighting and Telephone Improvements	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to but slightly less than the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to but slightly less than the proposed master plan.	Impacts would be similar to but slightly less than the proposed master plan.	Impacts would be similar to the proposed master plan.	Impacts would be similar to the proposed master plan.
No Action	Minor erosion potential would occur during development of exhibits and the Boyer parking lot. Some erosion at the shoreline would continue.	Impacts would be slightly less than under the proposed plan due to limited construction activity. Occasional traffic congestion would continue to impact local air quality, as with the proposed master plan.	Impacts would be similar to the proposed master plan, but detention could be necessary for the new lot. Some existing lots that would be eliminated in the proposed master plan and that do not have detention or oil separation would continue to impact water resources.	Minor disturbance would occur during development of exhibits and the Boyer parking lot. Some erosion at the shoreline would continue.	New exhibit and parking lot construction consume a small amount of energy compared with the proposed master plan	New exhibit and parking lot construction generate a small amount of construction noise compared with the proposed master plan	No land use impacts are anticipated under the no action alternative.	Only limited new development would occur. Many areas would continue to have limited accessibility for some users.	No impacts to historic resources are expected under the proposed master plan. No plans for rehabilitation of historic resources are currently adopted so some historic resources could be adversely affected.	Only limited new development would occur. New exhibit development would impact some areas, but to a lesser degree	No traffic increases would be generated by the no action alternative. Pedestrian crossings of Lake Washington Boulevard would continue to be dangerous. Parking capacity would remain aproximately the same as at present.	Impacts would be similar to the proposed master plan, except that education services would not increase as significantly.

Benefits and Disadvantages of Delayed Implementation of the Proposal

The primary benefit of delayed implementation of the proposal would be delay of most of the adverse impacts described in Part 3 of the EIS. The Washington Park Arboretum would continue to provide a place for the many visitors who come primarily to experience a naturalistic environment, and most potential impacts on natural resources would be avoided.

The primary disadvantages of delayed implementation of the proposal are the following:

- Maintenance would continue to be hampered by inadequate facilities, which could adversely affect the plant exhibits and collections
- Infrastructure in the park would further deteriorate
- People with disabilities would not be able to enjoy improved access to certain areas
- Stream habitat improvements along Arboretum Creek would not be made
- Safety features for pedestrians, bicyclists, and others would not be added
- Several planned new plant exhibits would not be introduced
- The increasing demand for educational opportunities would not be met in the Washington Park Arboretum.